

REMARKS

Claims 10-29 are now pending in the application. Claims 10, 11, 17 and 22 are amended herein. Claims 1-9 have been previously cancelled. In view of the above amendment, Applicant believes the pending application is in condition for allowance.

REJECTION UNDER 35 U.S.C. § 112

Claim 17 stands rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point and distinctly claim the subject matter which Applicant regards as the invention.

Claims 17 has been amended to depend from claim 14 which has rendered the rejection for lack of antecedent basis moot.

REJECTION UNDER 35 U.S.C. § 102

Claims 10, 12-13, 19-24 and 27-29 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Elliott (U.S. Pat. No. 5,108,691). This rejection is respectfully traversed.

As the Examiner is well aware, a rejection under 35 U.S.C. §102(b) can only be maintained if a single reference teaches each and every element of the claims. If there are any differences whatsoever between the reference and the claim(s), the rejection cannot be based on 35 U.S.C. §102. Titanium Metals Corp. v. Banner, 778 F.2d 775, 227 USPQ 773 (Fed. Cir. 1985).

Rather than reiterating each of the rejections as set forth in the pending official action, Applicant respectfully submits that claims 10 and 22 have been amended to

clarify that the shaping surfaces of the mold have low to no heat transfer which is not suggested or taught by Elliott. In view of this amendment, Applicant respectfully submits that the rejection under 35 USC. §102(b) has not been rendered moot. Therefore, reconsideration is respectfully requested.

REJECTION UNDER 35 U.S.C. § 103

Claims 11, 14-18 and 25-26 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Elliott (U.S. Pat. No. 5,108,691) in view of Reetz et al. (U.S. Pat. No. U.S. Pat. Pub. 2002/013340).

The Examiner correctly states that Elliott does not specifically teach the heat transfer per unit mass of the structural member between the various heat-transfer medium and the pressure resistant chamber is lower than $250 \text{ m}^2\text{s}^{-2}$ per 1 m^2 of surface of the structural member and per 1K of heating the structural member. However, the Examiner contends that Reetz discloses a heat transfer per unit mass range of $250 \text{ m}^2\text{s}^{-2}$ or lower. The Examiner concludes that it would have been obvious to one of ordinary skill in the art, having the teaching of Elliott and Reetz before him to modify the teachings of Elliott to include the teachings of Reetz for the benefit of eliminating system heat loss through the mold.

This rejection is respectfully traversed.

Upon detailed review of Elliott, there does not appear to be any teaching or suggestion with regard to the effects of a low to no heat transfer of the mold in carrying out the process described therein. Elliott appears to be particularly concerned with the preparation of thermoformable mats made of resonated fiberglass utilizing thermoset

resins as indicated at column 3, lines 31-40. While Elliott summarily mentions thermoplastic adhesives could be used, no quantitative data is provided.

Applicant suggests that if Elliott were concerned with utilizing thermoplastic binders as described according to the present invention, consideration of the heat transfer capacity of the mold would be imperative. Applicant submits that if the heat transfer of the mold is too high, the thermoplastic materials employed would stick to the mold surface which is highly undesirable.

In order to obtain a useful product according to the present invention, the heat transfer capacity of the mold is controlled to a low to no capacity in order to utilize the condensation of heat or the pressurized heat transfer medium and not the heat capacity of the medium itself for melting the binder of the air and permeable structural members. Further, this condensation heat is intentionally accomplished through the use of steam.

Contrary to the Examiner's suggestion, Reetz does not teach the use of steam even though it is summarily mentioned as an option, but uses hot, dry gases for activating the thermoplastic binder. Reetz is ultimately concerned with avoiding condensation within the mold, thus the need for using hot, dry gases which, of course, is in direct opposition to the present invention where the condensation heat of the pressurized heat transfer medium is the vehicle by which the thermoplastic binder is melted to obtain a useful end product.

Lastly, Applicant notes that Reetz makes it mandatory to employ RTV rubber platens; whereas the present invention explicitly notes that the use of coatings on the metallic upper tool portion is optional. Applicant therefore submits that the prima facie rejections of claims 11, 14-18 and 25-26 should be withdrawn.

In view of the foregoing arguments, Applicant respectfully submits that the prima facie case of obviousness in view of Elliott and Reetz has been effectively rebutted. Therefore, reconsideration of the rejection is respectfully requested.

CONCLUSION

It is believed that all of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider and withdraw all presently outstanding rejections. It is believed that a full and complete response has been made to the outstanding Office Action and the present application is in condition for allowance. Thus, prompt and favorable consideration of this amendment is respectfully requested. If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (248) 641-1600.

Respectfully submitted,

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